
ROBINSON PARK MASTER PLAN

SANDSTONE, MINNESOTA

UNIVERSITY OF MINNESOTA
CENTER FOR COMMUNITY STUDIES AND
DEPARTMENT OF LANDSCAPE ARCHITECTURE

OCTOBER, 1992

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Prepared for the Sandstone Economic Development Commission
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PROJECT DESCRIPTION

Robinson Park is the site of a former sandstone quarry. The city of Sandstone is in the process of implementing an interpretive plan of the park. The community contacted the University of Minnesota, Center for Community Studies and Department of Landscape Architecture to request student participation in the conceptual design phase of the interpretive plan. This report is the result of that project.

Several goals were established through discussions with various community members. These goals are as follows:

To integrate within the park design:

- a. The history of the quarry
- b. Natural resources
- c. Environmental education

To integrate typical park functions (i.e. picnic pavilions and boat launches) with the interpretive activities.

To provide a connection between the park and the historic center through a trail and stairway down the cliff that separates the city from the park.

To connect Robinson Park to Banning State Park and the Kettle River Environmental Education Center through a common trail system.

To develop a vegetation management plan.

To have the park accommodate activity throughout the year.

To have at least one park trail handicapped accessible.

The park is located on the east edge of the city, just north of highway 123. It

lies approximately 100 feet below the city at the base of the sandstone cliff and extends east to the Kettle River. The site was once the largest sandstone quarry in the state of Minnesota and was in operation from 1885 until 1938. Since the quarry quit operations, many of the buildings have been torn down or have been removed from the site. The foundations or outer shells of some of the buildings still remain along with other quarry artifacts. The site has almost totally revegetated itself over a period of approximately fifty years. A person walking into the site finds little evidence that it had ever been disturbed or that this site at one time was void of all vegetation and a place of bustling quarrying activity.

Robinson Park was added to The National Register of Historic Places in the fall of 1991. The city received a grant from the Outdoor Recreation, Community Development Division of the Minnesota Department of Trade and Economic Development to purchase adjacent property which was originally part of the quarry and to develop trails in the existing and newly acquired property.

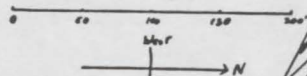
An instructor at Bemidji State University was hired by the city to perform a limited survey of Robinson Park. Spot elevations and a map showing the approximate location of the archaeological remains were provided to the city as part of this limited survey. This information was then used to generate the topographic base map. This base map is not intended to be a correct verified representation of the park's boundaries and topography, nor of the placement of the existing structures within the park. But it does portray, within reason, the approximate location of the park's features and topography.

CITY OF SANDSTONE.

ROBINSON PARK SITE ANALYSIS

- \\ FLOODPLAIN PLANT COMMUNITY
- / / NORTHERN HARDWOOD FOREST
- //// FERN/MOSS COMMUNITY
- ▨ ROCK PLANT COMMUNITY
- OPEN GRASS AREA
- - - WETLAND
- ⋯ SHALLOW MARSH
- ⋯ MOSS/LICHEN COMMUNITY
- | | INTERIOR BIRD NESTING AREA

Scale 50ft = 1 inch



Center line monument with 12" iron rods in east edge of road through marsh area. In road center from "28" on. Circled numbers relate to points in Sandstone Quarry - see map.

HIGHWAY
TRAFFIC
NOISE

STAIRWAY
CONNECTION
TO CITY

RAPPELING
CLIFF

RAILROAD
NOISE

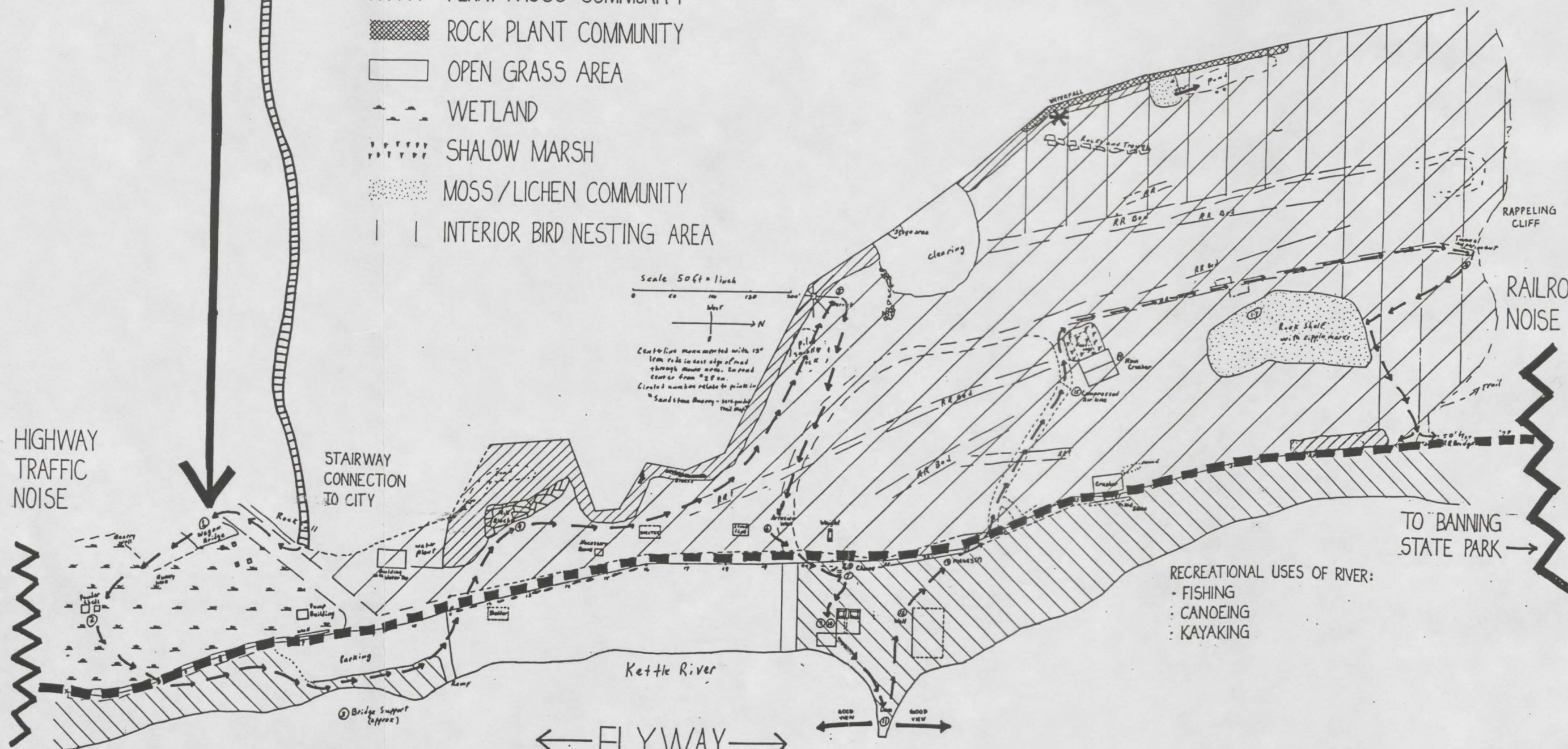
TO BANNING
STATE PARK

- RECREATIONAL USES OF RIVER:
- FISHING
 - CANOEING
 - KAYAKING

Kettle River

← FLYWAY →

← TO KREEC



SITE ANALYSIS

The site analysis attempts to depict existing site conditions that would impact the site design. The most noticeable quality of the site is the quarry artifacts. These artifacts give the visitors to the park a sense of the passage of time and spark their curiosity as to what occurred at the site previously.

PLANT COMMUNITIES

Another main feature is the variety of plant communities that exist on the site. The eight distinct communities have been named: the floodplain community, the northern hardwood forest, the fern/moss community, the rock community, the wetland area, the shallow marsh, the moss/lichen community and the open grass area. These different communities give certain locations of the site distinct qualities. These communities will be described below including a partial listing of some of the plants that make up each community.

The **floodplain community** can be found along the river edge for the full length of the site. It generally extends back to the old main railroad bed, except near the open grass area where it only extends back from the river several feet. The Kettle river is a flyway for warblers and for this reason the floodplain community is important because it provides food and shelter for the migrating birds. Some of the plants that make up this plant community are silver maple, boxelder, sumac, ash, juneberry and Japanese honeysuckle. The Japanese honeysuckle is not a native plant, but it does provide food for the migratory birds.

The **northern hardwood forest** area could also be called an early

successional plant community. It is made up of predominantly quaking aspen and paper birch. Other plants that exist in this community are oak, butternut, bigtooth aspen, mountain maple, pine and spruce. The area starts basically north of the entrance road and extends all the way to the north end of the site. It extends from the old railroad bed on the east to within ten to thirty feet of the cliff edge on the west. This plant community exists on top of the cliff also. In the northwest corner of the site and along the northern edge of the site, there is an interior woodland condition needed to promote the nesting of birds. In this area people most often hear birds singing. In order to promote the nesting of birds, this interior environment needs to be maintained and even enhanced.

The **moss/lichen community** is on the northern end of the site. Small groupings of trees, mainly aspen, grow in this area, but quite a bit of the area is open to direct sunlight. Here plants are growing directly on the rock shelf and the loose rocks left behind from the quarrying activities. Lichens are small plants that are able to grow on rocks. Lichen growth is the start of the successional process. This fairly rare plant community would not be able to handle much pedestrian traffic crossing it without ruining it. Therefore, an attempt should be made to minimize pedestrian traffic over this area in order to preserve it.

The **fern/moss community** is generally in an area within 10 to 30 feet from the western cliff wall. This area is shaded and moist, which gives it a lush feeling.

The **rock plant community** basically exists on the cliff walls near the waterfall and pond. This area also has

a very lush atmosphere with walls that are partially shaded and moist. The plants grow on small ledges created when the rock was blasted away for quarrying. Some of the plants that make up this community are liverwort, jewel weed, water hemlock, sedges, and bird's eye primrose. The bird's eye primrose is a fairly rare plant in the state of Minnesota which should be preserved.

The **shallow marsh** is a small area that exists near the foundation of the rock crusher building where a small pond lies between the foundation walls. Some of the plants that make up this community are cattail, beaked rush, blue grass, bulrush, willow, horsetail, St. John's wort and devil's paint brush. The devil's paint brush is attractive, but is not a native plant and is highly invasive. Unfortunately, trying to eliminate it is very difficult, so at least, growth of this plant should not be encouraged. The location of this unique plant community adds greatly to the feeling of ruins. Previously, the site was cleared of vegetation and structures were built by humans to fill their own needs. Now, nature once again is reclaiming the site and restoring it back to it's original beauty, grandeur and serenity.

The **wetlands** generally extend from the entrance road on the north to the southern edge of the park, from the old railroad bed on the east, back up to the entrance road along the west. This area contains several smaller plant communities of great interest. This is generally marsh land with thick understory and fairly dense canopy. An intermittent stream runs through the area and interesting rock formations can be found near the highway.

Finally, the **open grass area** between the two boat launches extending from the old railroad bed on the west down to within several feet of the river. The ground in this area is highly compacted and the grass is not growing well. Several trees are scattered throughout the area, but basically it is open to direct sunlight. Another small grass area exists near the water plant buildings where the entry road descends into the park. The grade is fairly steep between the buildings and the parking lot. Several coniferous trees are planted on the hillside near the water plant buildings.

SITE CONTEXT

The north end of the park connects directly with Banning State Park. The Kettle River Environmental Education Center (KREEC), is located several miles south of the park. Several people at the meetings expressed a hope that in the future, the connection between Robinson Park, KREEC, and Banning State Park would be enhanced by having a unified trail system running through them. Another long range goal that was mentioned by a community member was to eventually have a trail system that would run the length of the Kettle River. This is a very exciting concept that should be kept in mind while developing plans for Robinson Park.

On the site analysis map, the small arrows that wind around the site indicate the general location of a path that could lead visitors past the existing archaeological features of the site. The bold dashed line is an old railroad bed. It runs the length of the site and is approximately ten feet wide. There were quite a few different railroad beds throughout the site, but it appears that is was the main one.

The bold jagged line on the north end of the site denotes the loud noise created when the trains pass over the railroad bridge. It is interesting and romantic feeling to watch the trains cross over the bridge, but the noise is so loud that it prohibits conversation for people who are within 150 to 200 feet of the bridge. The smaller jagged line on the south end of the site denotes the noise caused by automobile traffic on Highway 123. The noise is not nearly as loud as the railroad, but instead is a constant low hum of automobiles passing by.

The Kettle River is a flyway for warblers as they migrate north in the spring and south in the fall. The vegetation on the banks of the river is an important feature that maintains the proper conditions that enable the warblers to migrate. The habitat needed by the migratory birds would be enhanced if most of the vegetation along the river is maintained.

The large arrow between the city of Sandstone and the park shows the interdependence that once existed between the city and the quarry. In some way this connection should be brought to the attention of visitors to the park and to the people of Sandstone.

Next to the large arrow is a diagram of a staircase that could start on the top of the cliff and go down the hillside into the park. It would be an alternative way to enter the park besides driving in by car. It could be used by the residents of Sandstone and by visitors to the city. It would be one way to better connect the city to the park.

An arrow has been placed over the pond to show that there is a beautiful view over the pond. The cliff wall which juts out at the end of the pond creates a

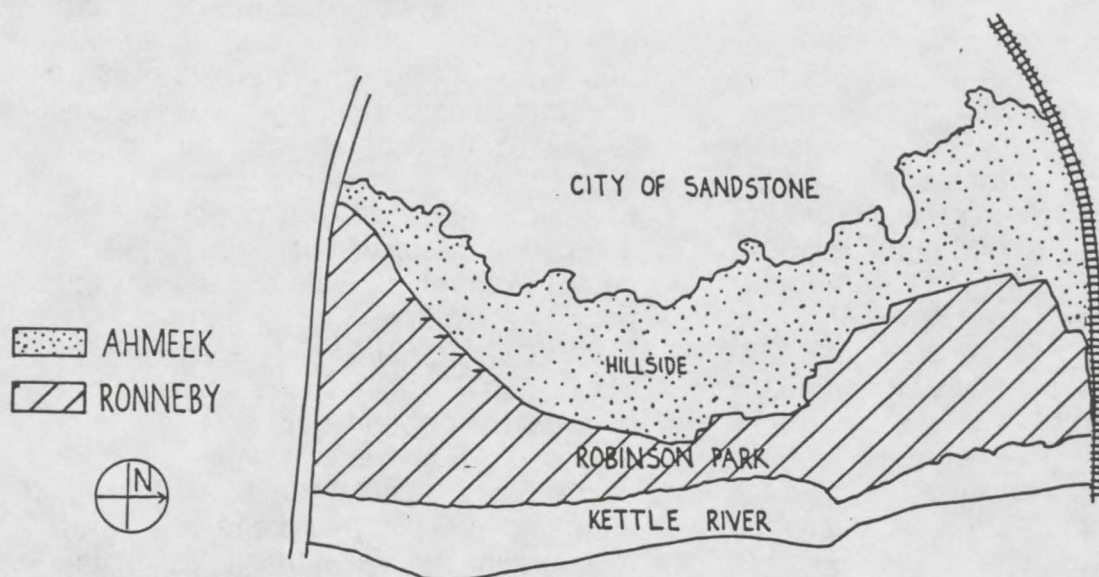
dramatic backdrop for the view of the pond. The existing cliff walls now have plants growing on the small ledges. Trees line the east side of the pond. A person realizes this beautiful spot was created by a combination of human activity on the site (the steep cliff walls and probably the pit where the water accumulated) and the work of nature reclaiming the site (the plant communities on the rock ledges and the trees that surround the pond). Small asterisks around the pond indicate that some wild orchids were found near the pond.

The Kettle River has been designated by the state of Minnesota as a Wild and Scenic River and is used quite a bit for recreational purposes. Fishing, canoeing and kayaking are examples of some of the activities done on the river.

Some medium sized arrows placed near the dam on the map denote the good views visible both up and down the river while standing out on the dam. A large asterisk has been placed near the waterfall to denote that this is a unique and beautiful location on the site. A cliff on the north end of the park is used by rock climbers for rappelling.

ROBINSON PARK

SOIL ANALYSIS



	RONNEBY	AHMEEK
WILDLIFE HABITAT SUITABILITY		
HABITAT ELEMENTS:		
• GRASS & LEGUME	FAIR	FAIR
• WILD HERB.	GOOD	GOOD
• HARDWOOD TREES	GOOD	GOOD
• CONIFEROUS TREES	GOOD	GOOD
• WETLAND PLANTS	GOOD	VERY POOR
• SHALLOW WATER	GOOD	VERY POOR
HABITAT FOR:		
• OPENLAND WILDLIFE	FAIR	FAIR
• WOODLAND WILDLIFE	GOOD	GOOD
• WETLAND WILDLIFE	GOOD	VERY POOR
MISC. INFO.		
• DRAINAGE	POOR	MOD./WELL
• EROSION	N/A	SEVERE
• FROST ACTION	HIGH	MODERATE

SOIL ANALYSIS

As part of the site analysis, a soil analysis was done. The last soil survey for Pine County was performed in 1941 and did not provide much useful information. Some areas close to the site have had surveys done more recently. These sites appear to have conditions similar to that of the quarry and the results of those surveys were applied to the site. It appears that the quarry is composed of two different soil types, one at the top of the cliff and another at the base of the cliff extending to the river.

The soil type, Ahmeek, is most likely on the top of the cliff. This soil is very sandy. It has moderate to good water drainage and moderate frost action. It is good for growing herbaceous plants, coniferous and hardwood trees and is fair for growing grasses and legumes. This soil is able to support a habitat that is good for woodland wildlife. The main issue to be concerned about for the site is that the Ahmeek soil severely erodes. This should be a consideration when any construction, such as the stairway, is being planned.

The soil at the base of the cliff is most likely classified as Ronneby. It has poor drainage and is susceptible to high frost action. It is good for growing herbaceous plants, hardwood and coniferous trees, wetland plants and shallow water plants. Its conditions provide for good woodland and wetland wildlife habitats. The soil types mentioned here are just best estimates of what the soil types actually are, but it appears through site observations that the descriptions of these two soil types generally reflect the conditions that exist on the site.

THE QUARRY PROCESS

→ BLASTING THE SANDSTONE

DAM

TURBINE

COMPRESSOR

DRILL MARKS

POWDER HOUSE

→ SEPARATE AND PROCESS

GUY DERRICK

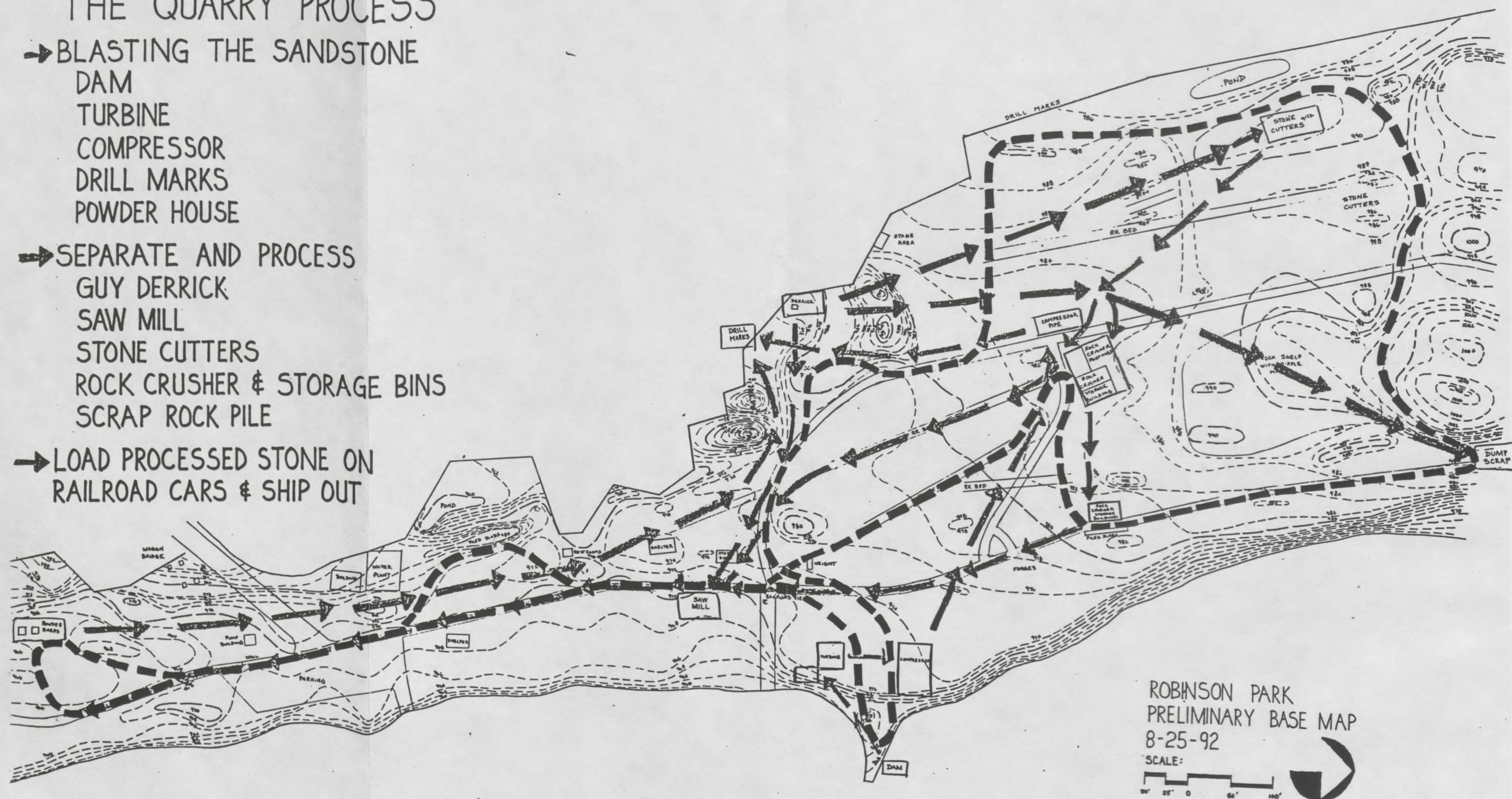
SAW MILL

STONE CUTTERS

ROCK CRUSHER & STORAGE BINS

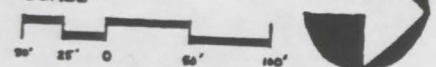
SCRAP ROCK PILE

→ LOAD PROCESSED STONE ON
RAILROAD CARS & SHIP OUT



ROBINSON PARK
PRELIMINARY BASE MAP
8-25-92

SCALE:



CONCEPTUAL DESIGNS

Three conceptual designs were developed, each one emphasizing a different theme that the final design could be based upon. Each of these designs will be explained separately.

THE QUARRY PROCESS

In this design, the emphasis was placed on trying to show the park visitors the process of quarrying sandstone. The first step in the process was generating power through the use of the dam. The water from the dam ran a turbine which, in turn, generated power to run the compressor. The compressor provided the power needed to drill holes in the sandstone. Black powder, which was stored in the powder houses, was used to fill the drilled holes and then ignited to blast the rock away from the cliff.

Once the rock was blasted, the rock would be processed in several different ways depending on the size of the rock. If the rock was of a large size, a guy derrick would be used to load it onto a rail car where it would be transported to the saw mill to be cut into building blocks. Rocks too small to be used as building blocks were transported to a section of the quarry where men would cut them down into stone pavers that would be used for roads. The smallest rocks were taken to the rock crusher to be ground even smaller and then stored by size in different storage bins. Finally, some of the rock was determined to be of no use and moved to the north end of the quarry where it was thrown onto a scrap rock pile.

The last step in the process was to load the processed rock into rail cars to be shipped out.

Because of the second phase of the quarrying process, where the rock was moved to different locations around the site, it is very difficult to give visitors a sequential tour of the quarry. The path that was drawn on this plan tried to give visitors a logical tour of the quarry that would best help them understand the quarrying process.

The path first starts near the parking lot and heads south past the powder houses. It then returns to the parking lot along the old railroad bed. North of the parking lot, the path veers away from the railroad bed and goes down to the dam, and the foundations of the turbine and compressor buildings. The path leads to this area first because this is where the process really began.

From the dam area, the path next leads towards the guy derrick. On the way, the visitors will cross over the remains of some compressor pipes that lead from the compressor to the cliff wall where the power was needed. When they reach the guy derrick, the visitors will see the drill marks created through the use of the compressor. They can also see the guy derrick that helped move the blasted rock onto rail cars in order to transport the rock to the next processing location.

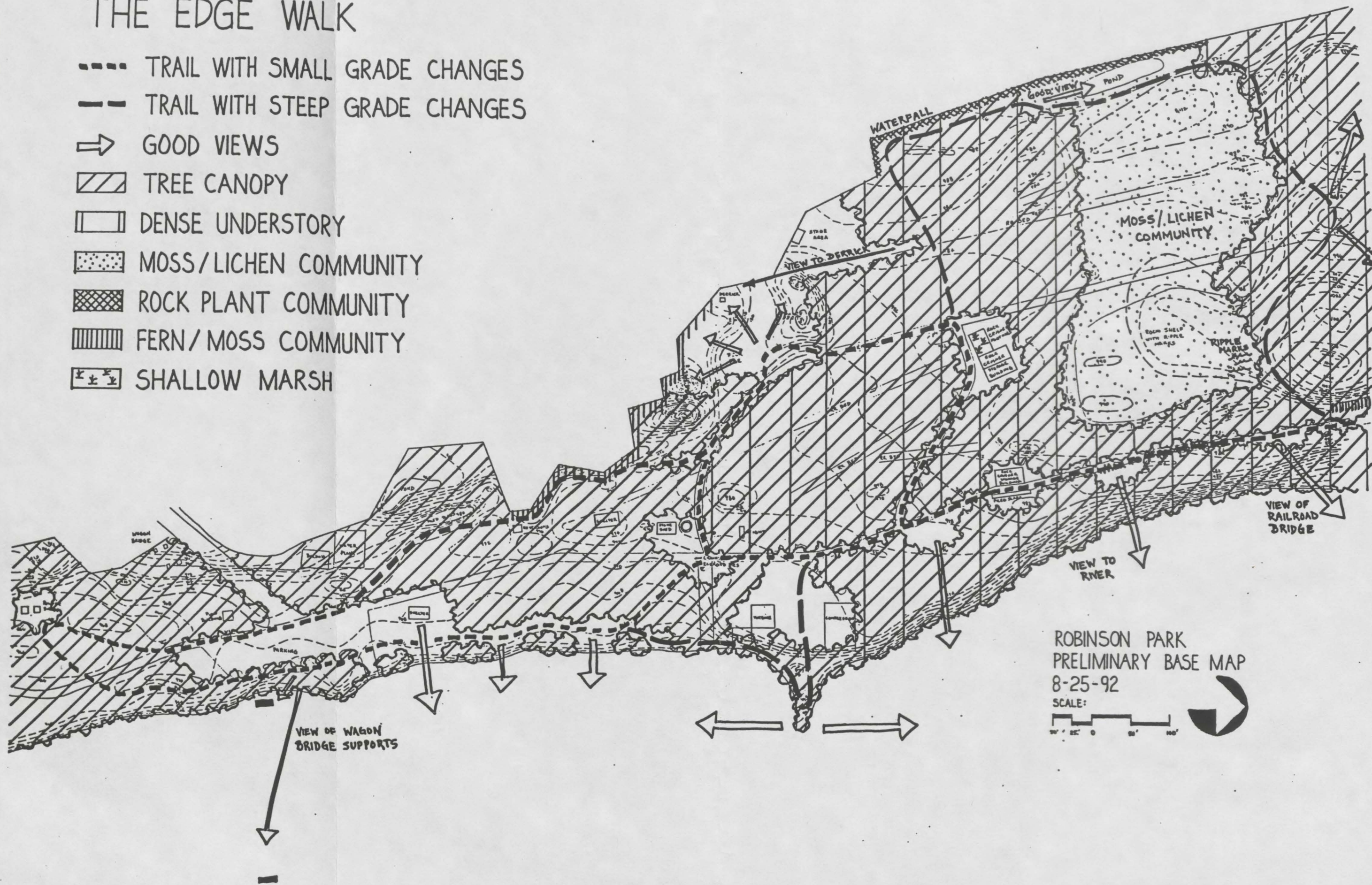
The path then leads the visitors to the waterfall, where they will see some more drill marks. From the waterfall, the path leads farther north to a spot where it appears that the stone pavers were created. The visitor will see piles of small rock that were chipped away by the stone cutters in order to create the pavers. The path next heads towards the river and passes the scrap rock pile that exists near the railroad bridge. Then the path leads the visitor back south on the old railroad bed, past the

foundations of the rock crusher and the crushed rock storage building.

Finally, the path heads back south along another old railroad bed and connects back to the main railroad bed. As the visitors head back towards the parking lot, they have the option to leave the main trail and take another path that leads the visitors past a pile of stone slabs. After passing the pile of stone slabs, this side trail then connects back up with the main railroad bed.

THE EDGE WALK

- TRAIL WITH SMALL GRADE CHANGES
- - - TRAIL WITH STEEP GRADE CHANGES
- ➔ GOOD VIEWS
- ▨ TREE CANOPY
- ▭ DENSE UNDERSTORY
- ▤ MOSS/LICHEN COMMUNITY
- ▩ ROCK PLANT COMMUNITY
- ▧ FERN/MOSS COMMUNITY
- ± ± ± SHALLOW MARSH



THE EDGE WALK

This design was done to highlight the features of Robinson Park that a person familiar with it would show a visitor to the park. The concept was named "the edge walk" because it appeared that the outer edges of the park held the most interest. This design also attempts to maintain or enhance the existing plant communities that exist on the site.

The trail for this design starts at the parking lot and leads under the tree canopy towards the pile of stone slabs near the water plant buildings. Even though there is an overhead tree canopy, this area has a open feeling where the ground is covered with grass. This grass area extends north to the artesian well and east all the way to the river. From the grassy area, the path moves close to the cliff wall where ferns and mosses grow on scrap rock lying at the base of the cliff. The path then moves away from the cliff wall and emerges out from under the canopy.

The path is surrounded on both sides by trees and then opens into a small clearing which provides a good view of the drill marks, the guy derrick, and a large pile of rocks left behind from the quarrying activity. As the path leaves the clearing area, it follows a railroad bed where it once again goes under the tree canopy. In this area of the park, the shrub growth is dense on both sides of the trail which gives a much more private feel to the walk. The trail enters another small clearing, which provides a space to view the foundations of the rock crusher and the crushed rock storage building. This area also provides a place to view the compressor pipe that still remains. Near the base of the stone crusher, a person will be able to see a small,

shallow marsh which gives a feeling of serenity to the remains of the buildings.

From this point, the visitors move back under the canopy onto a smaller foot trail that leads back to the edge of the cliff wall. On the way to the wall, they will walk into a small opening in tree canopy. In this opening the visitors will see a cable that supports the guy derrick. The vegetation has been cleared away from the cable so the cable can be viewed all the way back to where it connects to the guy derrick. Continuing on the foot path, the visitors end up at the waterfall where they can watch the water stream down the steep cliff walls and create a mist as it hits the base of the cliff. The visitors will also be able to see a plant community that grows on small ledges created when the rock was blasted away. It is a restful and contemplative place. The foot path then continues on along a small ridge line of piled rocks and comes out at the pond. As the visitors come upon the pond from the waterfall, they will be looking over the length of the pond, backdropped by the steep cliff walls.

The path continues along the length of the pond and passes by an area where the stone cutters probably worked. In this area, the visitor will also see a new plant community emerging that consists mainly of mosses and lichens. The path moves away briefly from this plant community and leads up a small knoll. It is in this area that a visitor is most likely to hear birds singing and to see their activity. From the top of the knoll, a person will have a good view down into another area that was built and used in the quarrying process. There are some interesting walls built of sandstone in this area and some other quarrying artifacts. The path does not go into the area directly, but invites the visitor to explore it further if they chose to leave

the path. The path descends down the knoll and moves closer to the moss/lichen community again where the visitors will have the opportunity to look at the rock shelf and see the ripple marks that were created over 900 million years ago.

The path moves away from the rock shelf and goes down a small hill where it connects up to the larger trail that is on the old main railroad bed. If the visitors travel north on this trail, they will cross over into Banning State Park. If they follow the trail to the south, back towards the parking lot, they will quickly come into a small clearing where they may move off the trail and have a view of the railroad bridge and the river below. As the visitors continue along the trail, they will find dense understory on both sides, with a partial tree canopy protecting the trail from above. The visitors will encounter another small clearing to view the river and a clearing that opens up around a crushed rock storage foundation. A short distance past the crushed rock storage foundation, the trail comes into the edge of a larger clearing. A smaller foot path is mowed through this clearing so that visitors may leave the main trail and explore the compressor wall, and the remains of the turbine and dam. This foot path then moves under the canopy for a short distance. When it emerges back into the sun, it is connected again with the main trail and follows the river bank back to the parking lot. If visitors chose not to go down to view the dam, the trail would lead them past the old artesian well, some old railroad ties and some chains that were used to move the rail cars in and out of the saw mill. Most of the path along the shore is in the sunlight, but several groupings of trees are maintained at the shoreline in order to frame some views out to the river. It is

along this section of the trail that the visitors actually get close to and are able to experience the river.

The path crosses in front of the picnic shelter. The shelter is open to the direct sunlight and the sight line to the river is maintained from the shelter. The trail then crosses over the boat launch and continues along the shoreline. The parking lot has been narrowed and lengthened in order to provide space wide enough to allow the trail to continue along the shoreline. While walking along this section of the trail, the visitors will be able to see the sandstone supports of the old wagon bridge. At the end of the parking lot, the path veers away from the river and leads towards the powder houses. In the area surrounding the powder houses, the canopy and shrubs have been cleared away from the structures. After passing the powder houses, the trail returns to the parking lot.

The trail along the main railroad bed, along with the trails that lead past the guy derrick, stone crusher foundations and the powder house are on fairly gradual grades that could be made handicapped accessible with a small amount of grading. The foot paths leading past the waterfall, pond, ripple marks and the dam cross over some steep grade changes. It does not appear possible to make these handicapped accessible without a large amount of grading and clearing of vegetation. As the path was described here, it followed the outer edges of the park, but several other trails have also been included in the design in order to provide the visitors with the option to turn back early at the guy derrick or the stone crusher foundation.

RECREATIONAL OPPORTUNITIES

- TRAIL ABOVE CLIFF
- - - TRAIL ON OLD RAILROAD BED
- ↔ SITE LINES
- NATIVE GRASSES
- ▨ TREE CANOPY
- CROSS COUNTRY SKI TRAIL
- ++++ FOOT PATH



ROBINSON PARK
PRELIMINARY BASE MAP
8-25-92
SCALE: 1" = 100'

RECREATIONAL OPPORTUNITIES

This third design concept tried to maximize the recreational opportunities that exist within the park. It tried to push the limits of what the possibilities could be in order to not overlook some ideas that might not have been considered otherwise. This design was also working with the historic idea of the expansion of the northwest, in particular, what were the qualities that allowed this quarry to play a successful role in this expansion and finally, how could these qualities be shown to the visitors of the park. It appears that it was the combination of three factors that made the quarry a successful contributor to the expansion of the northwest: the river, the city, and the railroad. An attempt was made in this design to try to vivify for the visitor, the link between these interdependent factors.

In this design, as visitors drive into the park they will be greeted with a view of grasses and trees at the end of the entrance road. The parking lot is composed of two smaller lots with a green area in between them. The north section of the lot is next to the boat launch. This lot was designed to provide a convenient parking place for automobiles that are pulling trailers.

An alternative way to enter the park would be to take a foot trail that starts on top of the cliff. This trail leads through the trees and down a stairway into the park. As the stairway emerges out from under the canopy, it turns into a small, elevated viewing platform. From this platform that visitors can get an overview of part of the park below, but more importantly, they would have a view of the old wagon bridge approach and a view down to the wagon bridge

supports in the river. Hopefully, they will make the connection between the wagon bridge approach and the supports and visualize what it used to be like. Also, by entering the park via the stairway, the visitors would better appreciate the connection between the city and the quarry. Finally, a strip of trees and underbrush would be cleared away between the parking lot and the wagon bridge approach so that people standing down near the river, in the area of the wagon bridge supports, could look back up and see the wagon bridge approach.

As people descend the rest of the stairs into the park, they will enter an open area of native grass. A path would be mowed through the grasses that would lead the visitors into a mowed picnic area where several picnic tables would be spread around on the grass. From this area, picnickers would have a close view of some piled sandstone slabs. This area would also lead the visitors to the main park trail which follows the old railroad grade. This trail could potentially be used for walking, biking and cross country skiing. This trail would also connect Robinson Park with Banning State Park and the Kettle River Environmental Education Center.

Another feature of the site that is located next to the trail and picnic area is a building that could be used as a picnic shelter, interpretive center and classroom. It could also be used in the winter months as a warming house for ice skaters on the pond and for cross country skiers that pass by on the trail. The building could also house a canoe rental center. A section of the riverfront would be cleared and turned into a beach where renters could launch their canoes. Directly north of the building would be an open grass field of native grasses. A large portion of the field

would be mowed to create an area for children to play.

A smaller path that could be used for walking in the summer and for cross country skiing in the winter shoots off from the main trail near the artesian well. This path follows another railroad bed to the clearing where the guy derrick can be viewed. It then leaves the railroad bed and goes past the amphitheater. The amphitheater area is cleared of trees and the ground is covered with mowed grasses. The ground has been graded to form several different levels. The levels increase in height as they move away from the stage. The stage is in front of the cliff wall. This amphitheater is approximately one half of the way into the park. It is remote enough not to be in a high traffic area, yet the walk to reach it would not be difficult or strenuous.

Midway through the amphitheater clearing, the trail connects to another railroad bed that heads north. This trail moves the visitors underneath the tree canopy and through the moss/lichen area until it reaches the northern end of the park. It then turns back towards the river until it connects back to the railroad bed that the visitors originally veered off on. The skiers/walkers can then follow this trail back to the main park trail.

At the location in the amphitheater clearing where the cross country ski trail moves under the canopy, a small foot path breaks away from the cross country trail and leads back closer to the western cliff wall. Once the cliff wall is reached, the visitors will see the waterfall. In both summer and winter this waterfall would be a beautiful sight to view. The foot path then leads the visitors to the pond which in the winter,

is used by ice skaters. The foot path continues along the length of the pond and then connects back up briefly with the cross country/walking trail. When the cross country/walking trail takes a turn to the south, the foot path once again breaks away and leads the visitors up a small knoll, where they can watch people rappel a cliff that had been created by the quarrying activity. The path would then head back out towards the river and connect up with the main park trail.

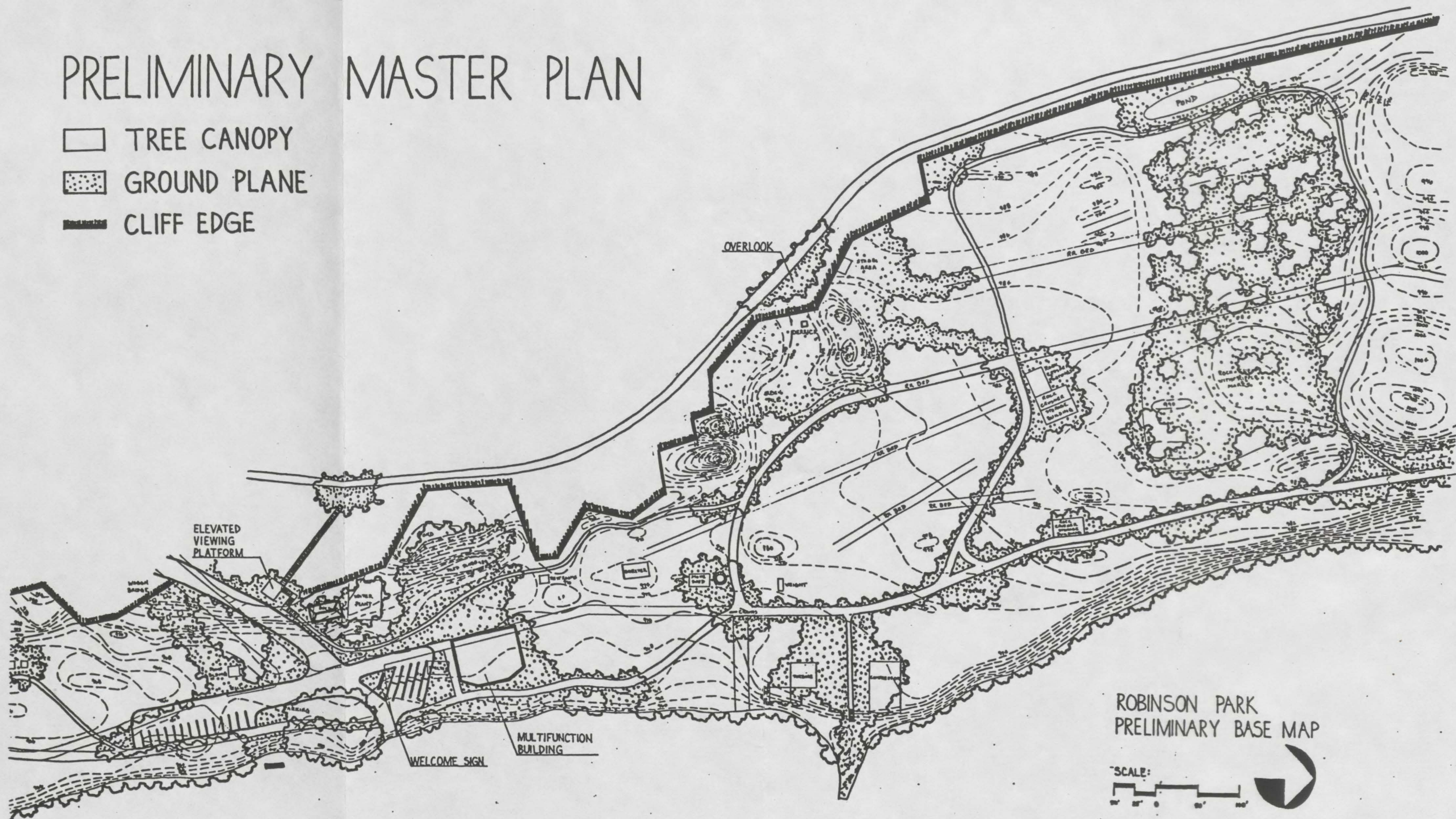
Another small cross country /walking path would break away from the main trail just south of the parking lot. This path would take the visitors past the powder houses and then would swing back towards the river and connect back up to the main trail.

On the northern end of the park, several foot paths would break away from the main trail and lead down to the river. At the river bank, small areas would be cleared to create space for fishing.

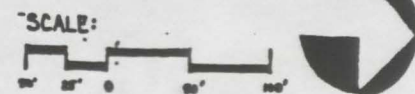
Along the top of the cliff, another trail would be developed. The trail would be used mainly for walking and biking. It would intersect the trail that connects the city with the park. An overlook would be developed on top of the cliff in an area near the guy derrick and stage. One view from this overlook would look out over the guy derrick and continue on to the dam and the river. Another view would look over the rock crusher foundations towards the railroad bridge and the river. These views could help the visitor see how the interrelationship between the quarrying activities, the river and the railroad helped in the expansion of the northwest.

PRELIMINARY MASTER PLAN

- TREE CANOPY
- ▨ GROUND PLANE
- CLIFF EDGE



ROBINSON PARK
PRELIMINARY BASE MAP



PRELIMINARY MASTER PLAN

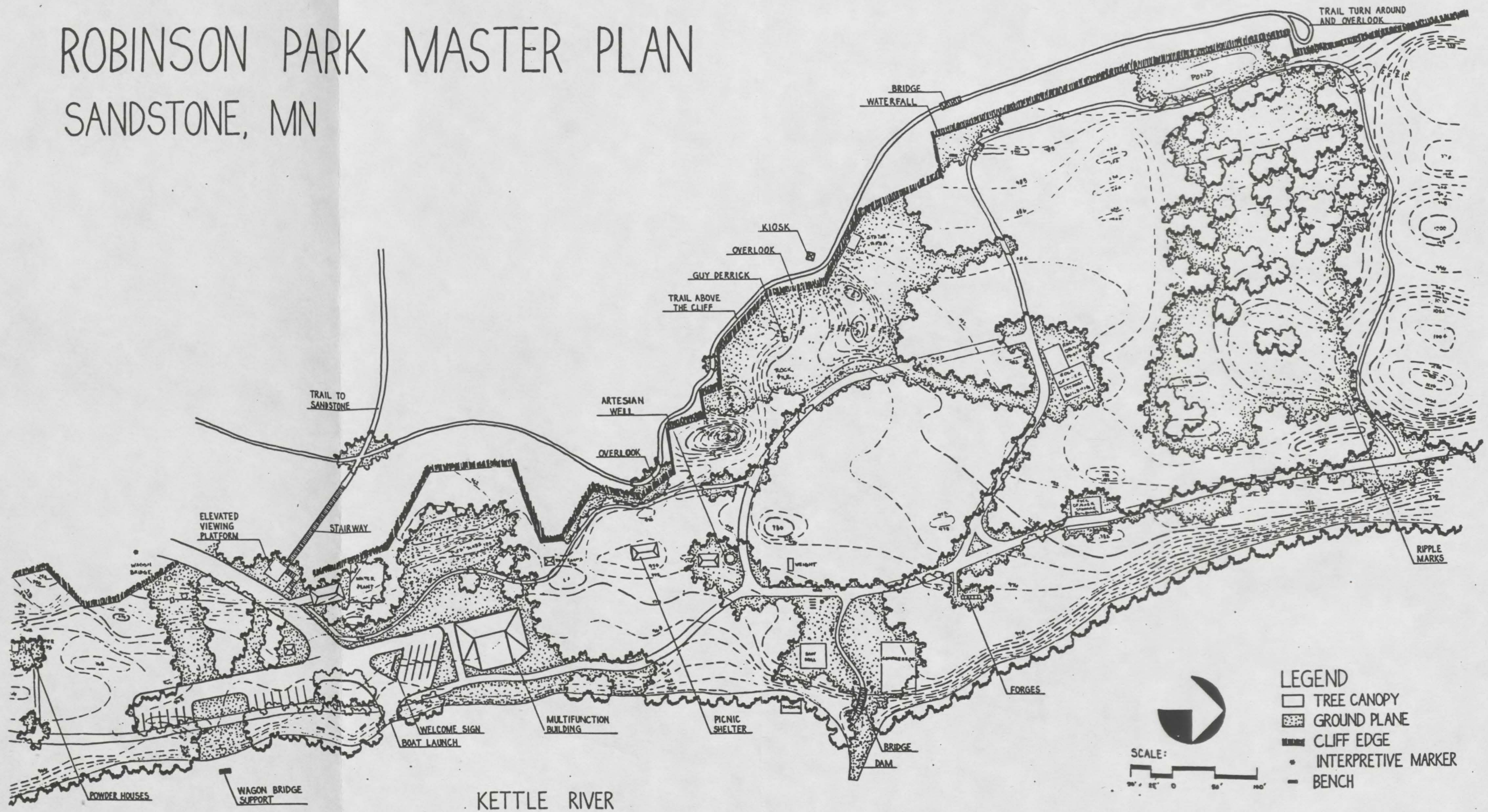
The three conceptual plans were presented to the community with a discussion afterwards to determine what aspects of the designs each community representative liked and disliked. The plan that appeared to be the closest to what the community desired was the edge walk. A preliminary master plan was developed that tried to integrate, as much as possible, the feedback received on the conceptual plans.

The preliminary master plan used the edge walk design for the management of the vegetation. The following concepts were incorporated from the recreational plan: the trail above the cliff; the elevated viewing platform; clearing vegetation to allow for sight lines between the platform, the wagon bridge approach and the wagon bridge supports; the multifunction building, and the redesigned parking lot.

One new idea that was introduced with the preliminary master plan was to have a welcome sign at the base of the entrance road. This sign would greet the visitors as they entered the park and also inform them that the park is listed on the National Register of Historic Places. The sign would be in the center of a planted median in the parking lot and it would have sandstone incorporated into its design.

Several benches were also added to the design at locations that were thought to have high scenic value, such as at the waterfall, pond and along the trail near the river.

SANDSTONE, MN



MASTER PLAN

The master plan tries to be sensitive to the existing plant communities while exposing some of the quarry artifacts to the visitors. It tries to maintain the quiet, reflective qualities that make the park such a wonderful place to visit.

ENTRANCE AND PARKING

As visitors enter the site from the entrance road, they are greeted at the bottom of the hill with a patch of vegetation and a view out to the river. Also, at the base of the hill, offset a little to the north of the entrance road, will be a planted median with a sign at its center welcoming the visitors to the park and informing them that the park is listed on the National Register of Historic Places. One possible design of the entrance sign is shown in figure 1.

If the visitors have towed in a boat, they may continue straight down the road to the boat launch, otherwise, they may turn off either to the north or south and park. The lot to the north has pull-through stalls for the benefit of automobiles with trailers. The lots to the south of the entrance drive have single car stalls.

Another way for a person to enter the park is to take a trail that originates at the top of the cliff on the edge of the city. This trail leads through the woods and then turns into a stairway as it descends the cliff. Before the stairway reaches the bottom of the cliff, it emerges from beneath the tree canopy and enters out onto an elevated viewing platform. From this platform the visitors will be able to see the old wagon bridge approach. Sight lines will be cleared through the vegetation to allow the visitors to see down to the wagon bridge supports. Sight lines

would also be cleared between the wagon bridge supports and the wagon bridge approach so that people standing down near the supports can look back up at the bridge approach to better understand the connection between these two artifacts. The elevated platform would have some interpretive signage built into it to help the visitors understand the important role the old wagon bridge played for the community. They can also see how the river was a barrier that needed to be crossed, and at the same time, an asset when it was dammed to generate power for the quarry operations.



Figure 1

As the visitors leave the viewing platform, they will descend the remaining stairs to the base of the cliff. From there they follow a mowed path through native grasses into a larger grass area. From this location, they can see a pile of large slabs of sandstone that had been blasted away from the cliff walls and imagine how these stones would have been hauled to

other areas of the quarry to be processed further.

CLIFF WALL AND GUY DERRICK

The path would then move the visitors under the tree canopy and up close to the cliff wall. This area is quite enchanting with the sunlight occasionally peaking through the leaves. Ferns and mosses grow on and in between small piles of stone at the base of the cliff. The visitors can look up and see the cliff walls with the drill marks on them.

The path then moves away from the wall and comes out from under the canopy. It connects with a larger trail that takes the visitors to a clearing where they can see the guy derrick and some more drill marks in the cliff walls. They will also see another impressive pile of smaller scrap rocks left behind. The trail moves past the rock pile and again goes beneath the tree canopy until it emerges out approximately 100 feet later at a small clearing.

ROCK CRUSHER FOUNDATION

In this clearing the visitors will be able to see the foundations of the rock crusher building and the crushed rock storage building. A small marsh area exists near the rock crusher foundation. The idea of this small, delicate plant community taking over an area, where heavy industrial works was once done, adds greatly to the feeling of the passage of time. From this location, the visitors are able to see one of the guy derrick supporting cables. The vegetation is cleared away from this cable to allow the visitors to view the cable back up to the derrick and understand the cable's purpose.

WATERFALL AND POND

At this point, a small foot path breaks off from the larger trail and leads the visitors back to the cliff wall to see the waterfall. Before they reach the waterfall, the visitors will cross through a small clearing in the path. Here they will be able to follow another guy derrick support cable back up to the derrick through a clearing in the vegetation. After they pass through the clearing in the path, visitors will enter the enchanting waterfall area. Water streams down the cliff walls and creates a small mist as it hits the ground. The cliff walls and the ground near the base of the cliff are covered with mosses, liverwort and other lush plants. A natural opening exists in the canopy that allows some light into this small, intimate area. The visitors may choose to sit down at a bench to take in the sight of the plants and the sounds of the water.



Figure 2

The path continues on, following the cliff wall and passing some more rocks piled at the base of the cliff. As the path emerges out into the sun, the visitors are greeted by a dramatic view of the pond and the cliff walls towering above and behind the pond as depicted in Figure 2. A bench is provided so that people may view the drill marks that run both along the length and the height of the walls, and to view the plant communities that now grow on the cliff wall ridges created by the blasting. They may also contemplate how this beautiful scene was created by both human activity and the forces of nature coming to reclaim the area.

STONE CUTTERS WORK AREA AND ROCK SHELF

The path continues along the length of the pond and past an area where it appears that the stone cutters worked. Here visitors will see a semicircular pile of small stone chips created by the cutters as they chipped away at the stones to make the stone pavers. The visitors will also notice that the ground and the rocks in this area are covered with mosses and lichens.

Next, the path will start leading the visitors back out towards the river. Along the way, it moves them to a spot where they can look in between two knolls and see another area where some quarry activity occurred. If the visitors choose, they may leave the path to explore this area further. It is in this area of the park, with the dense understory and tree canopy, where the visitors will most likely be able to hear and see song bird activity.

The next spot of interest that the visitors will pass is the flat rock shelf where they will be able to see the ripple marks that were created over 900 million years

ago. After the ripple marks, the path changes into a stairway made of stones set into the ground to descend a small hill. The path then connects to a larger trail that runs the length of the park along an old railroad bed. At this point, the visitors can choose between heading north on the trail, which will take them into Banning State Park, or returning to the south end of the park.

RIVER BANK WALK

Directly east of this intersection of the path and trail is another pile of sandstone slabs. The vegetation has been cleared away from these slabs and selective clearing has been done along the river bank to allow a view of the river and the railroad bridge. As the visitors head south along the trail, they will come upon another clearing off to the side of the trail where they will have another opportunity to view out over the river. The trail will then lead them past the foundation of another crushed rock storage building and pile of stone slabs.

Just past the crushed rock storage building foundations, the visitors will come upon a small path that leads off from the main trail, through a clearing in the vegetation. If they choose to leave the main trail and explore this small path, the visitors will enter an intimate clearing where they will see the forges. If the visitors decide to continue south on the trail, they will arrive at a larger clearing. The first items they will notice are some old railroad ties and some chains in the ground that were used to move the rail cars in and out the sawmill. A small mowed path leads into the clearing which extends towards the river. This path will lead the visitors past the foundations of the sawmill, turbine, and compressor building. As the path reaches the river bank, it

connects to a small foot bridge that allows the visitors to reach the dam. Out on the dam, the visitors have wonderful views both up and down the river.

Once the visitors have returned to the main trail and have continued moving to the south, they will come upon another clearing where they will see the old artesian well. From this area, the trail moves towards the river and then south along the river bank until it reaches the parking lot. It is in this section of the trail, that the visitors have the best opportunity to be close to the river.

This section of the trail will also lead past the site of the future multifunction building. As the name implies, this building could be used throughout the year as an interpretive center, a picnic shelter, or as a classroom. In the winter, it could be used as a warming house for cross country skiers or ice skaters. The greatest asset offered by this building is the beautiful view of the river it would provide to its users.

After the multifunction building, the visitors will cross over the driveway to the boat launch and follow the trail along side of the parking lot. They will come into a clearing where they will have a close view of the wagon bridge supports and also a view back up the hill towards the wagon bridge approach.

POWDER HOUSES

Just south of the parking lots, a small path veers off the trail to lead the visitors to the powder houses. The path moves under the tree canopy and comes out into a clearing which highlights these wonderful buildings. This is another powerful space, with the

vegetation now surrounding these small sandstone structures, it makes the visitors contemplate on the passage of time and the forces of nature at work.

UPPER CLIFF TRAIL

Another treasure that exists within the park is a path that lies above the cliff wall. This path breaks off from the trail that connects the city to the park and then extends north following the cliff edge. At first the path leads under the power lines and through some interesting plant communities where the visitors cannot see out over the cliff. The path makes its way towards the cliff edge out into a clearing just before the guy derrick. From this overlook, the visitors are able to look out over the park and river valley. They also get their first close look at the guy derrick from this location. The path then moves away from the cliff edge and leads the visitors around the guy derrick.

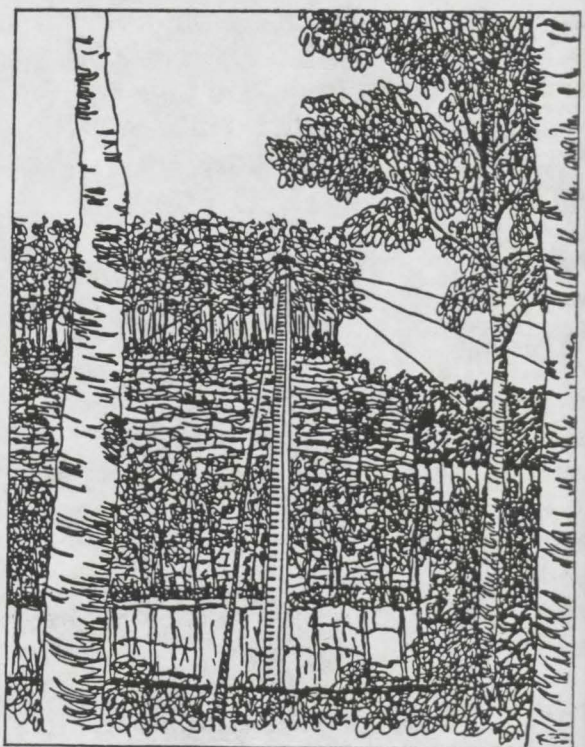


Figure 3

At one spot along the path the visitors cross over the spot where a guy derrick support cable attaches to the cliff. A small clearing in the vegetation allows the visitors to view the cable back out to the guy derrick as shown in Figure 3.



Figure 4

The path comes out to another overlook on the opposite side of the guy derrick as the first one. From this vantage point, the visitors will have another view of a guy derrick support cable which is attached to the cliff wall near the overlook. They will also have a panoramic view over the park where they will be able to see the rock crusher foundations, the river and the railroad bridge. At this overlook, there are several small information stations or a kiosk that will provide the visitors with the opportunity to learn more about the park, such as its history and existing plant communities, how the river is a flyway for migratory birds and/or how the quarry played a role in the expansion of the northwest. One

possible form these information stations could take is depicted in Figure 4.

The path then moves away from the cliff edge and leads past a small marsh area. At this point, the visitors will cross a foot bridge over a small ravine that intermittently carries water from the marsh to the waterfall. The path then continues to gradually work its way back towards the cliff edge. The path terminates in a small clearing set back approximately twenty feet from the cliff edge. If the visitors choose, they may approach the cliff edge where they will have a view down over the pond and views of the northern cliff walls. The visitors will need to return back on the same path they came out on. Eventually, it is hoped that this trail will connect up with a larger trail system, but in the meantime, it still offers some wonderful views and presents a tremendous opportunity for visitors to gain a better understanding of the park and its resources.

Two additional trails within the design are worth mentioning. Both of these trails are for the purpose of allowing visitors the option of how much of the park they want to explore. One of these trails, connects the artesian well area to the guy derrick area. The other trail connects the rock crusher area to the main trail that follows along the river. Small asterisks have been placed on the master plan next to the quarry artifacts to show the proposed positioning of the interpretive markers. In trying to position these markers, consideration was given to finding an area where the visitors would see them and be able to determine what they related to, but also not to be visually in the way for visitors who want to take pictures of the artifacts.

Robinson Park wonderfully meshes historical artifacts, plant communities and recreational opportunities. This design vivifies the best of these qualities to help visitors to the park understand how the interaction of human and natural forces made Robinson Park the refreshing and interesting place it is today.

The master plan depicts the park from an aerial perspective which predominantly shows the tree canopy. To compensate for this, a ground plane management plan was created to show how to manage the plants at the ground level. This plan is shown in appendix A.

In addition to the ground plane management plan, a trail management plan was done to show some methods that could be used in the construction of the park's trails. The trail management plan is shown in appendix B.

IMPLEMENTATION OF PROJECTS:

Throughout this design process, the issue of implementation has been discussed. It was determined that the realization of this master plan would take place in small increments over a period of years as funding and other resources became available. The section below divides the implementation into smaller projects. These projects can be done in any order that seems appropriate.

THE ENTRANCE ROAD

The entrance road offers a great opportunity to foreshadow for the park visitors, what the park is all about and how it came into existence. Clearing some of the vegetation away from the road to allow the people entering to see the sandstone (especially on the west side of the road), would give visitors a clue about the rest of the park and spark their curiosity to learn more about the park. The clearing of vegetation should be supervised closely by a person who has an understanding of bird and wildlife habitats in order to prevent or minimize any negative effects the clearing of this vegetation might have on these habitats.

THE PARKING LOT AND WELCOME SIGN

A licensed landscape architect should be hired to develop construction drawings for the parking lots. The welcome sign will also need to be designed.

The community may want to place movable bollards between the parking lot and the trail to discourage any unauthorized vehicular traffic on the trail.

THE UPPER TRAIL

The trail above the cliff should be brushed out to create a clear path through the vegetation.

The marsh area on top of the cliff and the connecting ravine that leads from the marsh to the waterfall should be cleaned up and managed. In addition, a small bridge should be built over the ravine.

At the locations where the guy derrick wires attach to the cliff near the path, vegetation should be cleared out to create sight lines along the wires back to the guy derrick.

At the overlook to the south of the guy derrick, the vegetation should be cleared away to allow for a view of the guy derrick.

Along the trail between the marsh and the pond overlook, is the remains of an old structure. This area should be cleaned up.

The power company has brushed the area beneath the power lines, but has left the brushed trees and shrubs lying in large piles near the power lines. Right now, these piles obstruct movement and give the impression of neglect and environmental degradation. The community may want to remove these piles of cleared vegetation to enhance the trail experience.

Information stands or a kiosk at one or more of the overlooks will need to be designed. Figure 4 in the master plan section shows a possible form the information stations could take. The design of these information stations is based on the design of the teaching stations that were proposed for the Kettle River Environmental Education

Center (KREEC). The community may want to use a similar style of structure to create a sense of unity between Robinson Park and KREEC.

STAIRWAY AND TRAIL CONNECTING THE CITY TO THE PARK

The staircase and elevated platform will need to be designed by a licensed architect and/or landscape architect. The interpretive signage on the platform will also need to be designed.

The entrance to the trail on top of the cliff needs to be designed. Consideration should also be given to the aesthetics of the area surrounding the trail entrance and what image this area would portray to tourists.

The master plan shows the elevated viewing platform a little uphill from where the current trail enters the park. Consideration should be given to placing the platform even farther uphill in order to provide a better view of the wagon bridge approach and to decrease the amount of stairs needed to reach ground level.

The community may consider planting some additional trees to the north side of the trail to reduce the view of the power lines.

THE MULTIFUNCTION BUILDING

An interdisciplinary team of an architect and a landscape architect should be hired to help the community develop an appropriate design for this building.

CLEARING OF VEGETATION

The shrubs along the piled sandstone slabs near the water plant buildings should be cleared out. The existing

birch trees in this area are damaged and will probably die in the near future. As they decline, these trees should also be removed in order to let the smaller oak and maple trees that are presently growing at their bases to mature.

Clearing of birch and aspen trees should be done around small hardwood trees that are presently growing on the site in order to promote the growth of these hardwood trees.

Clearing should be done around the base of the crushed rock storage building foundation that is near the main park trail. Vegetation should also be cleared away from the piled slabs directly across the trail from this crushed rock storage building foundation.

Vegetation should be cleared away from both areas of piled sandstone slabs that lie off of the main trail near the railroad bridge.

Woody vegetation should be cleared away from the cliff wall in the area generally between the rest rooms and the artesian well. The vegetation should be cleared away just enough to allow people to view up the cliff wall at the drill marks.

The lower branches of the trees near the dam should be trimmed up to provide a better view of the dam from the area near the turbine and compressor wall.

THE SOUTH END OF THE PARK

The south end of the park has not been covered in this plan. This part of the park has many wonderful educational opportunities and inspirational areas for park visitors. Due to the fact that much of this area is a marsh and an

intermittent creek runs through this part of the park, it will require substantial design work and funding to properly develop this area. This area also provides great habitat for wildlife. The community will need to weigh the trade off between allowing visitors to experience this part of the park against the possible negative environmental impact development may have on it.

MISCELLANEOUS PROJECTS

In order to enhance the experience of the park for those interested in seeing the artifacts, all of the picnic tables should be placed in one common area near the piled sandstone slabs or the picnic shelters.

The north boat launch should be removed.

The boulders that line the existing road leading north towards the railroad bridge give the impression that this road is available to be used by automobiles. These rocks should be removed to discourage any further automobile traffic.

The picture painted on the cliff wall near the stage should be removed in order to restore the area to a more natural appearance. Graffiti should also be removed from the rock crusher storage building foundations and at any other location that it currently exists in the park. The city should consult with the Minnesota Historical Society on the best procedures for paint removal.

Additional plantings should be done near the water plant buildings to reduce the buildings' visual impact without interfering with access to or function of the buildings.

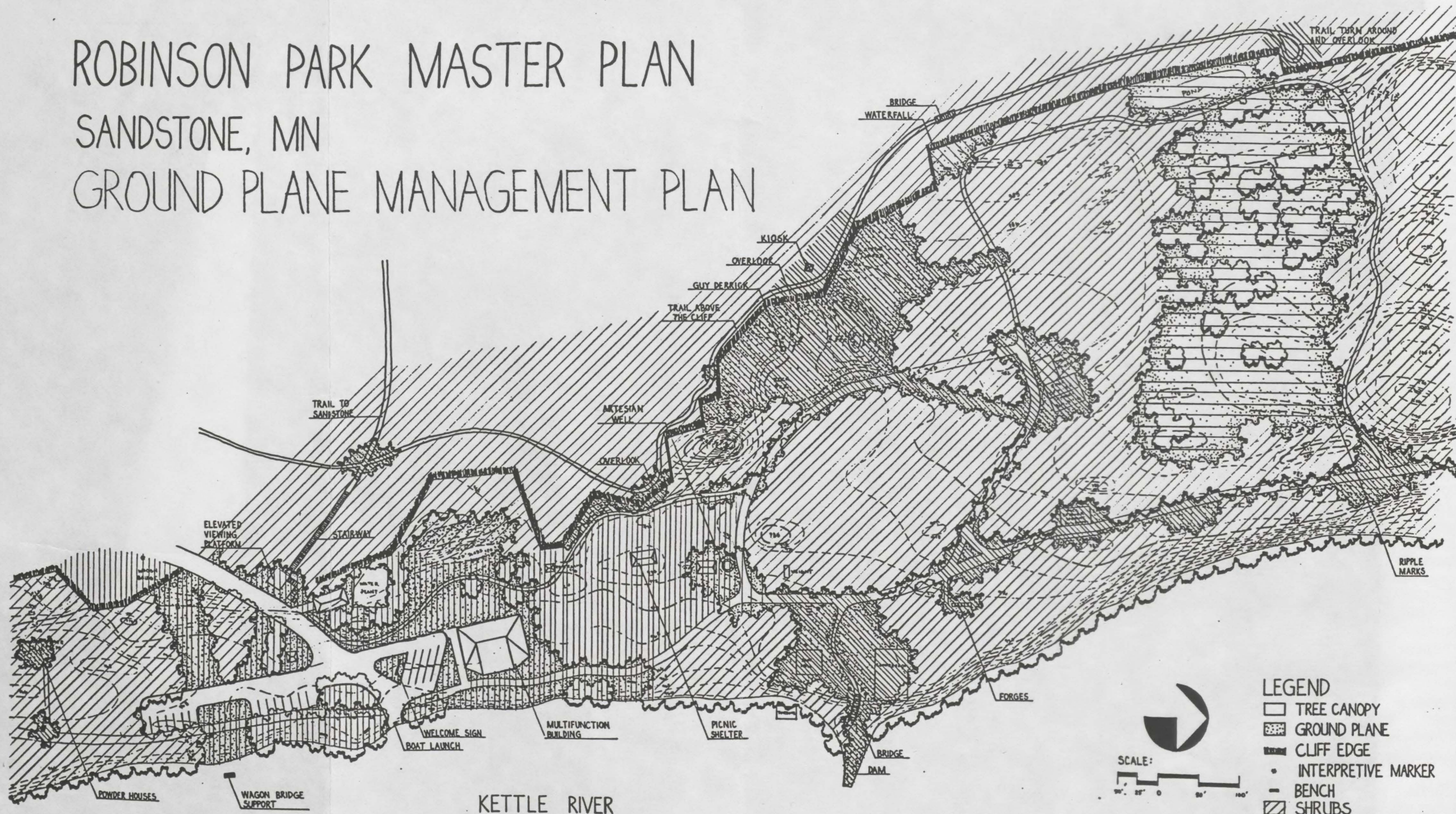
The existing structures should be painted colors that match the color of the weathered sandstone.

The community may want to consider planting some additional native vegetation at the head of certain existing trails where they want to discourage further pedestrian and vehicular traffic. Suggested native shrubs that could be used to revegetate these areas are listed in appendix C.

ROBINSON PARK MASTER PLAN

SANDSTONE, MN

GROUND PLANE MANAGEMENT PLAN



APPENDIX A

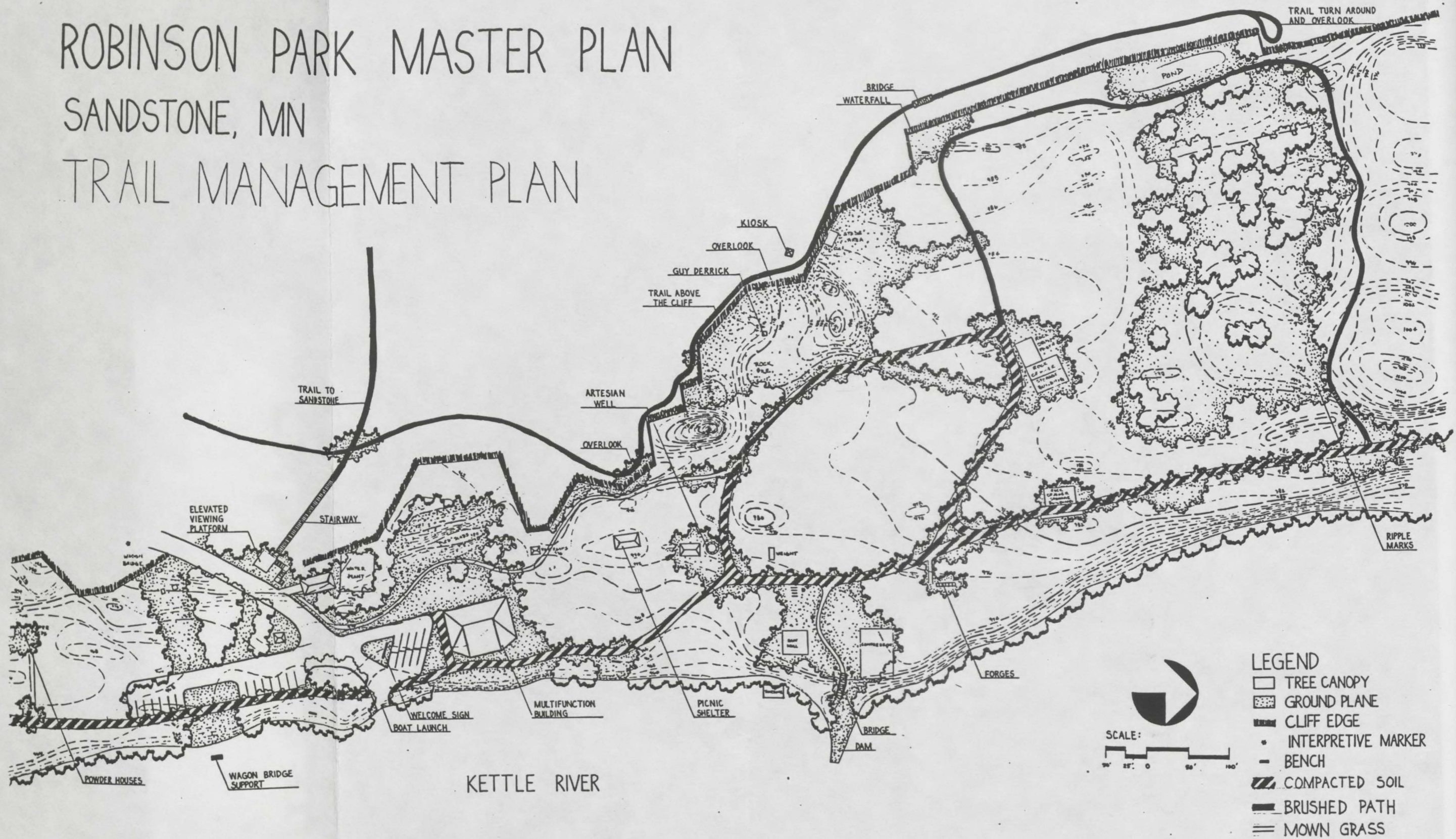
Robinson Park Ground Plane Management Plan

This plan was created to depict how the management of the park's ground plane could be done. First, an attempt should be made to maintain the plant communities in the moss/lichen area and the shallow marsh area. The area around the parking lot and the picnic area could be planted with native grasses. The viewing areas and the areas surrounding the quarry artifacts should be cleared of shrubs to provide better views of the artifacts. Finally, a dense shrub layer could cover the ground plane for the rest of the park, both above and below the cliff wall to provide habitat for wildlife.

ROBINSON PARK MASTER PLAN

SANDSTONE, MN

TRAIL MANAGEMENT PLAN



APPENDIX B

Robinson Park Trail Management Plan

This plan was done to show some methods that could be used in the construction of the park's trails. The trail above the cliff and the foot paths near the waterfall and pond could be created by brushing out a path from the surrounding shrubs. The main trail that follows the old railroad bed could be created by compacting the soil. This would allow the trail to handle some vehicle traffic when necessary. Finally, the trail that leads people from the viewing platform to the lower cliff wall and the trail leading to the dam from the main trail could be created by mowing a path through the native grasses.

APPENDIX C

Below is a list of suggested native shrubs, which are able to grow in compacted soil, that could be used to revegetate sections of Robinson Park.

VERY SMALL SHRUBS - LESS THAN 3 FT

SCIENTIFIC NAME

Andromeda polifolia
Chamaedaphne calyculata
Cornus Canadensis
Diervilla lonicera
Epigaea repens
Gaultheria procumbens
Ledum groenlandicum
Vaccinium macrocarpum

COMMON NAME

Bogrosemary Andromeda
Leatherleaf
Bunchberry Dogwood
Dwarf Bushhoneysuckle
Trailing Arbutus
Checkerberry Wintergreen
Labradortea Ledum
Cranberry

SMALL SHRUBS - 3 TO 6 FT

SCIENTIFIC NAME

Aronia melanocarpa
Lonicera canadensis
Ribes americanum
Rubus strigosus
Spiraea alba

COMMON NAME

Black Chokeberry
American Fly Honeysuckle
American Black Currant
American Red Raspberry
Narrowleaf Meadowsweet Spirea

MID-HEIGHT SHRUBS - 6 TO 12 FT

SCIENTIFIC NAME

Cornus Stolonifera
Ilex verticillata
Salix humilis
Viburnum trilobum

COMMON NAME

Redosier Dogwood
Common Winterberry
Prairie Willow
American Cranberrybush Viburnum

LARGE SHRUBS - 12 TO 20 FT

SCIENTIFIC NAME

Betula pumila
Salix lucida

COMMON NAME

Low Birch
Shining Willow